

WHAT IS CLAIMED IS:

Sub 9, 5 1. A sterilized, purified, long acting drug composition, which comprises:

an active drug dispersed within a polymer matrix which is solubilized or suspended in a liquid medium; wherein the polymer matrix is composed of negative charged polymers blended with nonionic polymers.

9 10 (2) The composition of claim 1, wherein the highly negative charged polymer material is selected from the group consisting of polysulfated glucosoglycans, glycosaminoglycans, ~~glycosaminoglycans~~, mucopolysaccharides and mixtures thereof.

add to cl 1

15 3. The composition of claim 2, wherein the negative charged polymer material is selected from the group consisting of hyaluronic acid salts, chondroitin sulfate and mixtures thereof.

20 4. The composition of claim 3, wherein the negative charged polymer material has a mean average molecular weight below about 800,000.

25 5. The composition of claim 3, wherein the hyaluronic acid salt is the sodium salt and has a mean average molecular weight of from about 650,000 to about 800,000, a sulphated ash content below about 15% and a protein content below about 5%.

30 6. The composition of claim 1, wherein the nonionic polymers are selected from the group consisting of carboxymethylcellulose sodium, hydroxyethyl cellulose, hydroxypropyl cellulose and mixtures thereof.

add to cl 1

35 7. The composition of claim 1, wherein the nonionic polymer is hydroxyethyl cellulose.

8. A stable, sterile composition which comprises: an active drug solubilized within a matrix containing a negative charged polymer having a mean average molecular weight between about 650,000 and 800,000 blended with a nonionic polymer, wherein the molar ratio of the ^{Negative} charged polymer to the nonionic polymer is 1:0.5 to 2.

9. The solution of claim 8, wherein the negative charged polymer is a mucopolysaccharide polymer having an average molecular weight between about 700,000 and about 775,000.

10. The solution of claim 9, wherein the charged polymer is the hyaluronate salt of sodium, calcium, potassium or magnesium.

11. The solution of claim 8, wherein the nonionic polymers are selected from the group consisting of carboxymethylcellulose sodium, hydroxyethyl cellulose, hydroxypropyl cellulose and mixtures thereof.

12. The solution of claim 8, wherein the molar ratio of the polymers is 1:0.8 to 1.5.

13. The solution of claim 8, wherein the ^{Negative} charged polymer is present in amounts of about 0.1% to about 2.0% by weight _{of the entire composition}.

14. The solution of claim 8, wherein the nonionic polymers are present in amounts of about 0.1% to about 1.0% by weight _{of the entire composition}.

15. A stable, sterile gelled composition which comprises: an active drug dispersed within a matrix containing a negative charged polymer having a mean average molecular weight between about 650,000 and 800,000 blended with a nonionic polymer, wherein the molar ratio of the ^{Negative} charged polymer to the nonionic polymer is 1:0.5 to 2 and the negative

charged polymer is present in amounts of about 2.0% to about 3.0% by weight.

5 16. The gel of claim 15, wherein the negative charged polymer is a mucopolysaccharide polymer having an average molecular weight between 700,000 to 775,000.

10 17. The gel of claim 16, wherein the charged polymer is the hyaluronate salt of sodium, calcium, potassium or magnesium.

15 18. The gel of claim 15, wherein the nonionic polymers are selected from the group consisting of carboxymethylcellulose sodium, hydroxyethyl cellulose, hydroxypropyl cellulose and mixtures thereof.

19. The gel of claim 15, wherein the molar ratio of the polymers is 1:0.8 to 1.5.

20 20. The gel of claim 15, wherein the charged polymer is present in amounts of about 0.1% to about 2.0% by weight.

9 25 21. The gel of claim 15, wherein the nonionic polymers are present in amounts of above about 1.0% by ^{weight}~~weights~~.

22. A method for the treatment of a condition in animals for a sustained period of time, which comprises:

30 injecting a therapeutically effective dose of a suspension or solution of a sterilized, purified, drug composition comprising a drug dispersed within a polymer matrix which is solubilized or suspended in a liquid medium; wherein the polymer matrix contains a negatively charged polymer blended with a nonionic polymer.

23. The method of claim 22, wherein the negatively charged polymer material is selected from the group consisting of glucoaminoglycans, mucopolysaccharides and mixtures thereof.

5

24. The method of claim 22, wherein the negative charged polymer material is hyaluronic acid salt.

10

25. The method of claim 24, wherein the material has a mean average molecular weight below about 800,000.

15

26. The method of claim 24, wherein the hyaluronic acid salt is the sodium salt and has a mean average molecular weight from about 650,000 to about 800,000, a sulphated ash content below about 15%, a protein content below about 5% and purity of at least 98%.

20

27. The method of claim 22, wherein the nonionic polymer is selected from the group consisting of carboxymethylcellulose sodium, hydroxyethyl cellulose, hydroxypropyl cellulose and mixtures thereof.

25

28. The method of claim 22, wherein a therapeutically effective dose is administered to treat acute, chronic or intractable diseases or conditions.

30

29. The method of claim 28, wherein the condition treated is chronic intractable or sympathetically mediated pain.

35

30. The method of claim 22, wherein the therapeutically effective dosage penetrates the lipoprotein nerve sheath to alleviate the pain without significantly modifying motor or sensory functions.

31. The method of claim 22, wherein a therapeutically effective dose is administered during or after abdominal, cervical, thoracic or cardiac surgery, to treat postoperative pain and post amputation.

32. The method of claim 22, wherein the pain treated is associated with or caused by abnormal cell growth, cancer, tumor mass, arthritis, sickle cell disease, hemophilia, pinched nerve, damaged nerve, or migraine.

33. The method of claim 22, wherein a therapeutically effective dose is administered to treat the peripheral nerve responsible for carrying the nociception.

34. The method of claim 22, wherein a therapeutically effective dosage is administered epidurally, subcutaneously, epidermally or intramuscularly.